

## ABSTRACT OF THE DISCLOSURE

There is provided white light illumination system including a radiation source, a first luminescent material having a peak emission wavelength of about 575 to about 620 nm, a second luminescent material having a peak emission wavelength of about 495 to about 550 nm, which is different from the first luminescent material and a third luminescent material having a peak emission wavelength of about 420 to about 480 nm, which is different from the first and second luminescent materials. The LED may be a UV LED and the luminescent materials may be a blend of three or four phosphors. The first phosphor may be an orange emitting  $\text{Eu}^{2+}$ ,  $\text{Mn}^{2+}$  activated strontium pyrophosphate,  $\text{Sr}_2\text{P}_2\text{O}_7:\text{Eu}^{2+}$ ,  $\text{Mn}^{2+}$ . The second phosphor may be a blue-green emitting  $\text{Eu}^{2+}$  activated barium silicate,  $(\text{Ba},\text{Sr},\text{Ca})_2\text{SiO}_4:\text{Eu}^{2+}$ . The third phosphor may be a blue emitting SECA phosphor,  $(\text{Sr},\text{Ba},\text{Ca})_3(\text{PO}_4)_3\text{Cl}:\text{Eu}^{2+}$ . Optionally, the fourth phosphor may be a red emitting  $\text{Mn}^{4+}$  activated magnesium fluorogermanate,  $3.5\text{MgO}\cdot 0.5\text{MgF}_2\cdot \text{GeO}_2:\text{Mn}^{4+}$ . A human observer perceives the combination of the orange, blue-green, blue and/or red phosphor emissions as white light.